WHAT IS CLAIMED IS:

1. An ink set comprising a first aqueous ink and a second aqueous ink having a same color tone, wherein the first ink and the second ink contain at least one common coloring material, the second ink has a lower coloring material content than the coloring material content of the first ink, and a degree of fading of an image produced with the second ink is the same as or lower than a degree of fading of an image produced with the first ink.

2. An ink set comprising a first aqueous ink and a second aqueous ink having a same color tone, wherein the first ink and the second ink contain at least one common coloring material, the second ink has a lower coloring material content than the coloring material content of the first ink, and an image produced with the second ink when it is left under a condition that promotes fading has a residual rate of reflection density that is equal to or greater than that of an image produced with the first ink.

3. An ink set according to Claim 2, wherein said condition comprises irradiation with a xenon lamp.

4. An ink set according to any one of Claims 1 to 3,

wherein both the first ink and the second ink have a cyan tone.

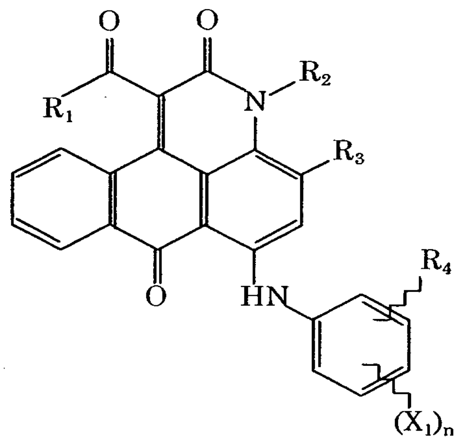
5. An ink set according to any one of Claims 1 to 3, wherein both the first ink and the second ink have a yellow tone.

6. An ink set according to any one of Claims 1 to 3, wherein both the first ink and the second ink have a magenta tone.

7. An ink set according to Claim 1 or 2, wherein the first ink further contains another coloring material.

8. An ink set according to Claim 6, wherein the second ink contains a dye represented by formula (I) as a sole coloring material:

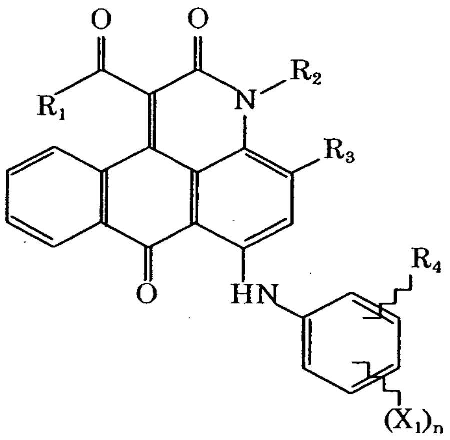
Formula (I)



wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2.

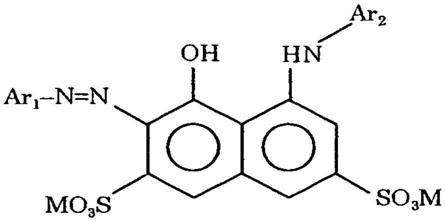
9. An ink set according to Claim 6, wherein the first ink contains a dye represented by formula (I) and at least one of a dye represented by formula (II) and a dye represented by formula (III), as coloring materials:

Formula (I)



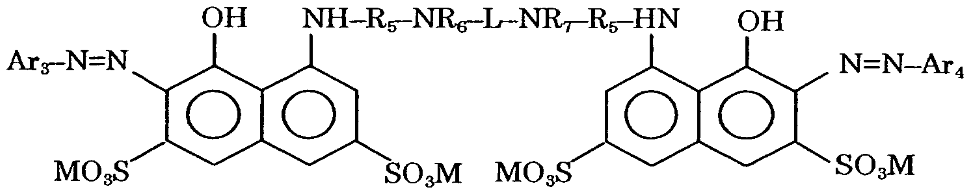
wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2;

Formula (II)



wherein Ar_1 is a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group; Ar_2 is selected from the group consisting of an acetyl group, a benzoyl group, a 1,3,5-triazinyl group, a SO_2-C_6H_5 group, and a SO_2-C_6H_4-CH_3 group; and M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group;

Formula (III)



wherein each of Ar_3 and Ar_4 is independently a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group group, at least one of Ar_3 and Ar_4 having a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group; R_5 is a 1,3,5-triazinylene group; each of R_6 and R_7 is independently selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, and an atomic group necessary to complete a perhydroxyazine ring together with N; and L is a bivalent organic connecting group.

10. An ink set according to Claim 9, wherein the first ink further contains at least one of C. I. Acid Red 52 and C. I. Acid Red 289 as the coloring material.

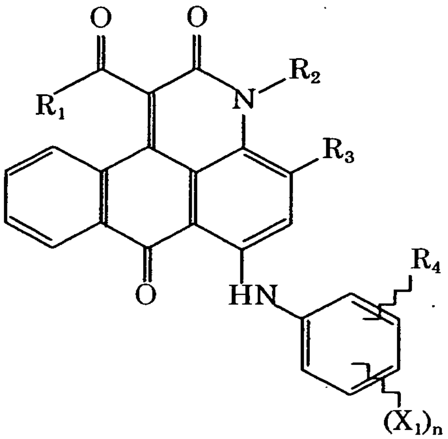
11. An ink set according to Claim 6, wherein the first ink contains a dye represented by formula (I) and at least one of C. I. Acid Red 52 and C. I. Acid Red 289.

12. An ink set according to any one of Claims 1 to 3, wherein total content of all coloring materials in the first ink is 1.0% to 15.0% by weight of the first ink.

13. An ink set according to any one of Claims 1 to 3, wherein total content of all coloring materials in the second ink is 0.1% to 5.0% by weight of the second ink.

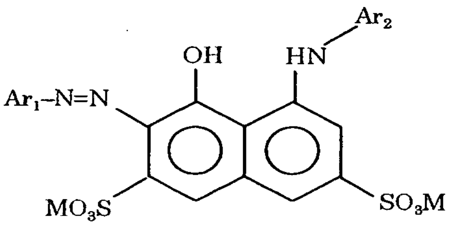
14. An ink set comprising a first ink and a second ink having a same color tone, wherein the second ink has a lower coloring material content than the coloring material content of the first ink, the second ink is an aqueous ink containing a dye represented by the following formula (I) as a sole coloring material, and the first ink is an aqueous ink containing a dye represented by formula (I) and at least one of a dye represented by formula (II) and a dye represented by formula (III), as coloring materials:

Formula (I)



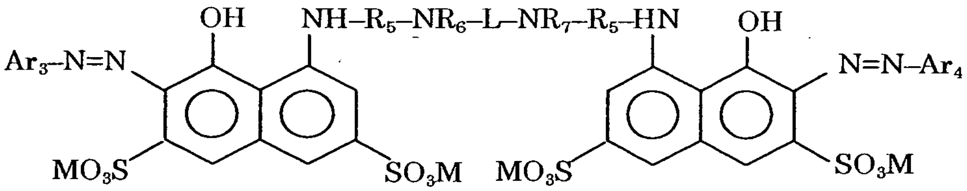
wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2;

Formula (II)



wherein Ar_1 is a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group; Ar_2 is selected from the group consisting of an acetyl group, a benzoyl group, a 1,3,5-triazinyl group, a $SO_2-C_6H_5$ group, and a $SO_2-C_6H_4-CH_3$ group; and M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group;

Formula (III)



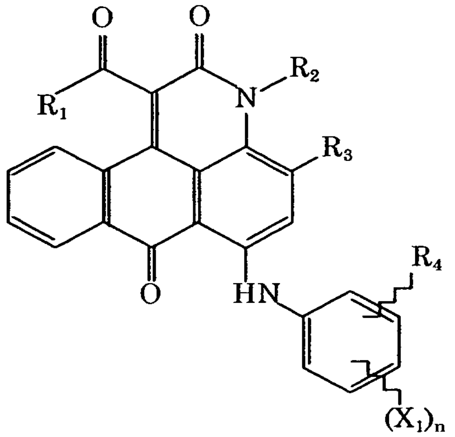
wherein each of Ar_3 and Ar_4 is independently a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group, at least one of Ar_3 and Ar_4 having a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group; R_5 is a 1,3,5-triazinylene group; each of R_6 and R_7 is independently selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, and an atomic group necessary to complete a perhydroxyazine ring together with N; and L is a bivalent organic connecting group.

15. An ink set according to Claim 14, wherein the first ink further contains at least one of C. I. Acid Red 52 and C. I. Acid Red 289 as the coloring material.

16. An ink set according to Claim 14, wherein the first ink further contains C. I. Acid Red 289 as a coloring material.

17. An ink set comprising a first ink and a second ink having a same color tone, wherein the second ink has a lower coloring material content than the coloring material content of the first ink, the second ink is an aqueous ink containing a dye represented by formula (I) as a sole coloring material, and the first ink is an aqueous ink containing a dye represented by the following formula (I) and at least one of C. I. Acid Red 52 and C. I. Acid Red 289:

Formula (I)



wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2.

18. An ink set according to any one of Claims 14 to 17, wherein total content of all coloring materials in the first ink is 1.0% to 15.0% by weight of the first ink.

19. An ink set according to any one of Claims 14 to 17, wherein total content of all coloring materials in the

second ink is 0.1% to 5.0% by weight of the second ink.

20. An ink set according to any one of Claims 14 to 17, further comprising at least one color ink selected from the group consisting of a black ink, a cyan ink, and a yellow ink.

21. An ink set according to any one of Claims 1, 2, 14 and 17, wherein the residual rates of the reflection density of images produced with the first and second inks are 80% or more.

22. An ink set according to any one of Claims 1 to 3 and 14 to 17, wherein the ink set is used for an ink jet printer.

23. An ink set according to Claim 22, wherein the ink jet printer is a bubble jet printer.

24. An ink jet recording apparatus comprising:

ink storage portions storing a first aqueous ink and a second aqueous ink having a same color tone respectively, wherein the first ink and the second ink contain at least one common coloring material, the second ink has a lower coloring material content than the coloring material content of the first ink, and a degree of fading of an image produced with the second ink is the same as or lower than a degree of fading of an image produced with the first ink; and

a head portion for ejecting the inks.

25. An ink jet recording apparatus comprising:

ink storage portions storing a first aqueous ink and a second aqueous ink having a same color tone respectively, wherein the first ink and the second ink contain at least one common coloring material, the second ink has a lower coloring material content than the coloring material content of the first ink, and an image produced with the second ink when it is left under a condition that promotes fading has a residual rate of reflection density that is equal to or greater than that of an image produced with the first ink; and

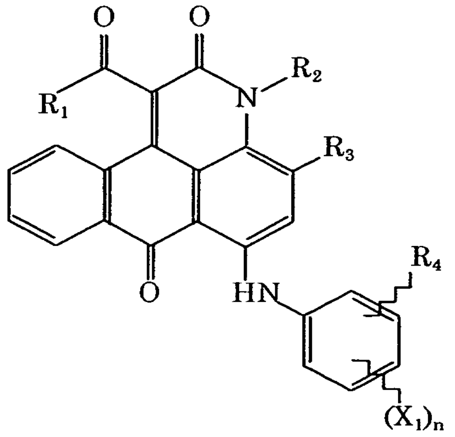
a head portion for ejecting the inks.

26. An ink jet recording apparatus comprising:

ink storage portions storing a first ink and a second ink having a same color tone respectively, wherein the second ink has a lower coloring material content than the coloring material content of the first ink, the second ink is an aqueous ink containing a dye represented by formula

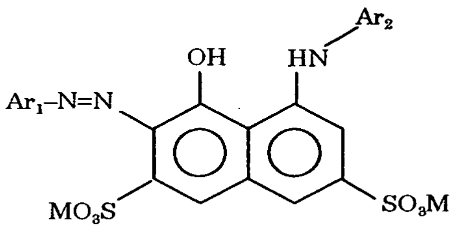
(I) as a sole coloring material, and the first ink is an aqueous ink containing a dye represented by formula (I) and at least one of a dye represented by formula (II) and a dye represented by formula (III), as coloring materials:

Formula (I)



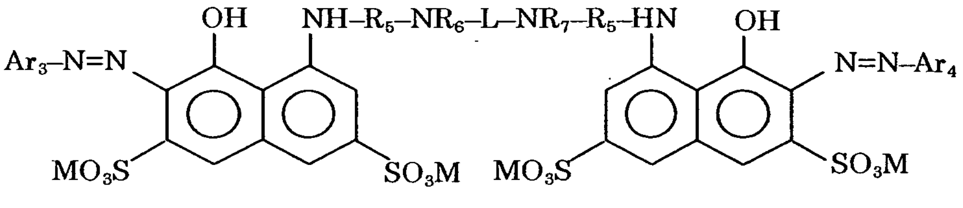
wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2;

Formula (II)



wherein Ar_1 is a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group; Ar_2 is selected from the group consisting of an acetyl group, a benzoyl group, a 1,3,5-triazinyl group, a $SO_2-C_6H_5$ group, and a $SO_2-C_6H_4-CH_3$ group; and M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group;

Formula (III)



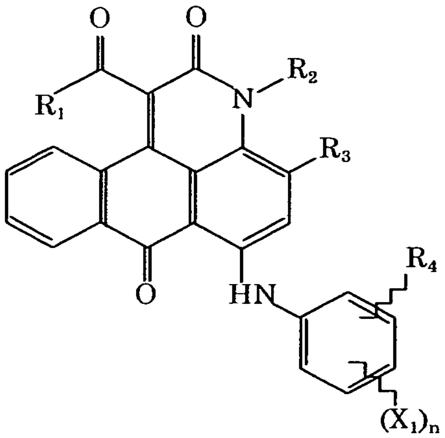
wherein each of Ar_3 and Ar_4 is independently a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group, at least one of Ar_3 and Ar_4 having a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group; R_5 is a 1,3,5-triazinylene group; each of R_6 and R_7 is independently selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, and an atomic group necessary to complete a perhydroxyazine ring together with N; and L is a bivalent organic connecting group; and

a head portion for ejecting the inks.

27. An ink jet recording apparatus comprising:

ink storage portions storing a first ink and a second ink having a same color tone respectively, wherein the second ink has a lower coloring material content than the coloring material content of the first ink, the second ink is an aqueous ink containing a dye represented by formula (I) as a sole coloring material, and the first ink is an aqueous ink containing a dye represented by formula (I) and at least one of C. I. Acid Red 52 and C. I. Acid Red 289:

Formula (I)



wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2; and

a head portion for ejecting the inks.

28. An ink jet recording apparatus according to any one of Claims 24 to 27, wherein residual rates of reflection density of images produced with the first and second inks are 80% or more.

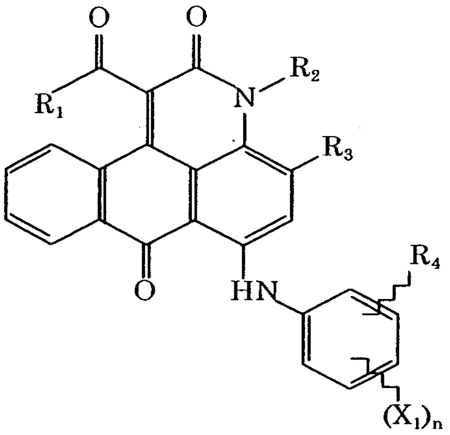
29. An ink jet recording method comprising the step of applying a first aqueous ink and a second aqueous ink having a same color tone to a recording medium, wherein the first ink and the second ink contain at least one common coloring material, the second ink has a lower coloring material content than the coloring material content of the first ink, and a degree of fading of an image produced with the second ink is the same as or lower than a degree of fading of an image produced with the first ink.

30. An ink jet recording method comprising the step of applying a first aqueous ink and a second aqueous ink having the same color tone to a recording medium, wherein the first ink and the second ink contain at least one common coloring material, the second ink has a lower coloring material content than the coloring material content of the first ink, and an image produced with the second ink when it is left under a condition that promotes fading has a residual rate of reflection density that is equal to or greater than that of an image produced with the first ink.

31. An ink jet recording method comprising the step of applying a first ink and a second ink having a same color tone to a recording medium, wherein the second ink has a

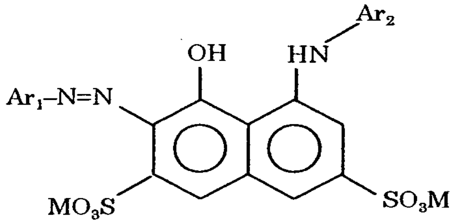
lower coloring material content than the coloring material content of the first ink, the second ink is an aqueous ink containing a dye represented by formula (I) as a sole coloring material, and the first ink is an aqueous ink containing a dye represented by formula (I) and at least one of a dye represented by formula (II) and a dye represented by formula (III), as coloring materials:

Formula (I)



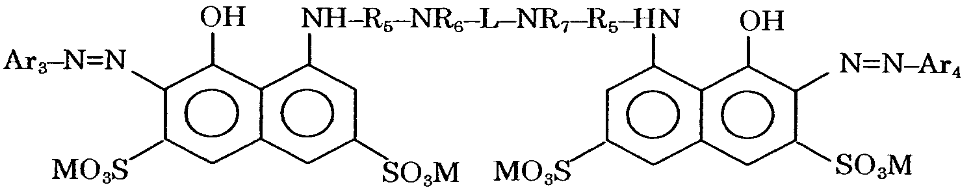
wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2;

Formula (II)



wherein Ar_1 is a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group; Ar_2 is selected from the group consisting of an acetyl group, a benzoyl group, a 1,3,5-triazinyl group, a $SO_2-C_6H_5$ group, and a $SO_2-C_6H_4-CH_3$ group; and M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group;

Formula (III)

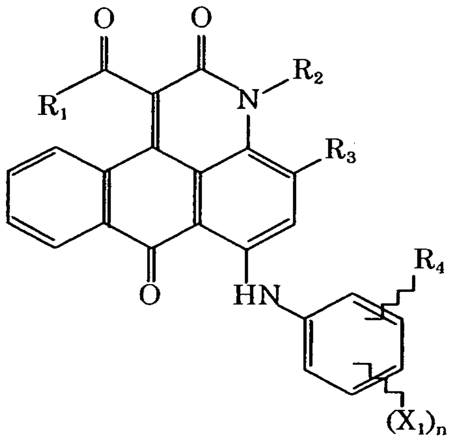


wherein each of Ar_3 and Ar_4 is independently a substituted or unsubstituted phenyl group, or a substituted or unsubstituted naphthyl group, at least one of Ar_3 and Ar_4

having a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; M is selected from the group consisting of a hydrogen atom, an alkali metal, an ammonium, and an organic ammonium, M being a counter ion of the sulfonic acid group; R_5 is a 1,3,5-triazinylene group; each of R_6 and R_7 is independently selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, and an atomic group necessary to complete a perhydroxyazine ring together with N; and L is a bivalent organic connecting group.

32. An ink jet recording method comprising a step of applying a first ink and a second ink having a same color tone to a recording medium, wherein the second ink has a lower coloring material content than the coloring material content of the first ink, the second ink is an aqueous ink containing a dye represented by formula (I) as a sole coloring material, and the first ink is an aqueous ink containing a dye represented by formula (I) and at least one of C. I. Acid Red 52 and C. I. Acid Red 289:

Formula (I)



wherein R_1 is a substituted or unsubstituted alkoxy group or a substituted or unsubstituted aryl group; each of R_2 and R_4 is independently a hydrogen atom or a substituted or unsubstituted alkyl group; R_3 is selected from the group consisting of a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted alkoxy group, a substituted or unsubstituted aryloxy group, and a halogen atom; X_1 is a carboxyl group or a salt thereof, or a sulfonic acid group or a salt thereof; and n is 1 or 2.

33. An ink jet recording method according to any one of Claims 29 to 32, wherein the inks are ejected from orifices in response to recording signals so as to adhere to a recording medium.

34. An ink jet recording method according to Claim 33,

wherein the inks are ejected from orifices by applying thermal energy thereto in response to recording signals so as to adhere to the recording medium.

35. An ink jet recording method according to any one of Claims 29 to 32, wherein the residual rates of the reflection density of images produced with the first and second inks are 80% or more.

36. A recording unit comprising:
an ink container section containing inks; and
a head section for ejecting the inks,
wherein the inks constitute an ink set according to Claim 22.

37. A recording unit according to Claim 36, wherein the head section comprises heads for ejecting the inks by applying thermal energy to the inks.

38. An ink cartridge comprising an ink container section containing inks, wherein the inks constitute an ink set according to any one of Claims 1 to 3 and 14 to 17.